

Mineral Industry Surveys

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NICKEL IN JULY 2005

Reported domestic nickel consumption in July, on a daily average basis, was 13% less than that of June, according to the U.S. Geological Survey. Daily average nickel consumption of cathodes, pellets, briquets, powders, and ferronickel for stainless steel was 55.3 metric tons per day (t/d), 12% less than the 62.6 t/d for June and 16% less than the 66.2 t/d (revised) for July 2004. Consumption of >99.8% nickel metal to make superalloys (such as INCONEL 718 and Waspaloy) increased 2% from June levels, on a daily average basis. In contrast, consumption to make corrosion-resistant, less stress-resistant nickel-base alloys (such as INCONEL 600 and Nickel 200) decreased by 11% on a daily average basis. Sales to plating companies averaged 28.2 t/d, about 14% less than the June sales figure of 32.6 t/d.

On July 31, U.S. consumer stocks of cathode, pellets, briquets, and powders totaled 1,290 metric tons (t), down 10% from the figure of 1,440 t (revised) for June 30 and 9% less than the 1,420 t reported for December 31, 2004. Stocks in London Metal Exchange (LME) warehouses totaled 7,110 t on July 31, slightly greater than the 7,032 t on June 30.

The United States imported 75,300 t of primary nickel in the first 6 months of 2005, 12% greater than the 67,300 t for the corresponding half of 2004.

Some of the percentages reported in the first paragraph are based on data concealed to avoid revealing individual company proprietary data.

TABLE 1
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE¹

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total	Total year to date
2004:					
July	4,820	536	43	5,400	38,300
August	4,880	677	36	5,590	43,900
September	4,570	549	48	5,170	49,100
October	5,110	734	41	5,890	55,000
November	4,640	504	37	5,180	60,200
December	4,550	482	36	5,070	65,200
January-December	58,200	6,600	461	65,200	XX
2005:					
January	5,020	589	40	5,650	5,650
February	4,870	534	38	5,440	11,100
March	4,870	533	38	5,440	16,500
April	5,280	500	45	5,820 ^r	22,400
May	4,920	551	36	5,510	27,900
June	5,440	560	39	6,030	33,900
July:					
Steel:					
Stainless and heat resisting	1,170	547	W	1,720	13,200
Alloy (excludes stainless)	W	--	--	W	1,700
Superalloys	1,090	--	W	1,090	7,250
Copper-nickel alloys	W	--	--	W	W
Electric, magnetic, and expansion alloys	12	--	--	12	89
Other nickel & nickel alloys	W	--	W	W	W
Cast iron	W	--	--	W	W
Electroplating (sales to platers)	875	--	--	875	5,870
Chemical and chemical uses	W	--	--	W	W
Other uses	1,670	--	35	1,710	11,200
Total reported	4,820 ²	547	35	5,400	39,300
Total all companies (calc) ³	XX	XX	XX	10,200	73,900
2005: January-July	35,200	3,810	274	39,300	XX
2004: January-July	34,400	3,660	260	38,300	XX

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Of consumption, 3,870 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

³Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (53.17%) to apparent primary consumption for 2003.

TABLE 2
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS,
BY FORM AND USE^{1,2}

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total
2004:				
July	1,260	147	30	1,440
August	1,490	139	32	1,660
September	1,640	184	31	1,860
October	1,390	146	50	1,590
November	1,340	170	59	1,570
December	1,420	147	45	1,610
2005:				
January	1,460	192	52	1,700
February	1,510	226 ^r	70	1,800
March	1,850	221	45	2,110
April	1,520	183 ^r	49	1,750
May	1,600 ^r	198	55	1,860
June	1,440 ^r	215 ^r	38	1,690 ^r
July:				
Steel (stainless, heat resisting and alloy)	542	197	(3)	739
Nonferrous alloys ⁴	714	20	(3)	734
Foundry (cast irons)	(3)	W	--	(3)
Chemical (catalysts, ceramics, plating salt, etc.) and unspecified uses	35	W	48	83
Total	1,290	217	48	1,560

^rRevised. W Withheld to avoid disclosing company proprietary data. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Stocks held by companies that consume nickel in more than one end use category are credited to the major category. Stocks are subject to revisions owing to inventory adjustments.

³Included in the "Chemical and unspecified uses" category.

⁴Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys.

TABLE 3
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE¹

(Metric tons, nickel content)

Period	Consumption			Stocks		
	Ferrous scrap ²	Nonferrous scrap ³	Total scrap	Ferrous scrap ²	Nonferrous scrap ³	Total scrap
2004:						
July	6,100	676	6,770	3,580	76	3,650
August	6,260	960	7,220	3,350	73	3,420
September	5,640	816	6,450	3,740	75	3,810
October	6,100	713	6,820	3,770	70	3,840
November	5,950	740	6,690	3,550	63	3,620
December	6,430	585	7,010	3,320	65	3,390
January-December	75,100	9,330	84,400	XX	XX	XX
2005:						
January	5,720	631 ^r	6,350 ^r	2,330	62 ^r	2,390 ^r
February	4,680	719 ^r	5,400 ^r	2,440	72 ^r	2,520 ^r
March	4,510	782 ^r	5,290 ^r	2,490	86 ^r	2,580 ^r
April	4,930	745 ^r	5,680 ^r	2,510	85 ^r	2,600 ^r
May	3,790	759 ^r	4,550 ^r	2,620	83 ^r	2,700 ^r
June	4,520	681 ^r	5,200 ^r	2,810	105 ^r	2,920 ^r
July	4,120	633	4,760	2,740	94	2,830
January-July	32,300	4,950	37,200	XX	XX	XX

^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

³Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of origin	Cathodes pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date ⁴	Wrought nickel
2004:										
June	9,190	732	978	--	553	680	324	12,500	77,600	86
July	7,370	914	1,070	--	624	663	374	11,000	88,600	79
August	9,770	800	1,020	24	585	928	434	13,600	102,000	116
September	6,590	571	1,080	207	689	697	339	10,200	112,000	88
October	11,100	976	1,280	210	535	780	321	15,300	128,000	43
November	9,140	659	1,240	240	602	696	378	13,000	141,000	33
December	9,380	814	1,730	170	403	1,340	295	14,100	155,000	46
January-December	107,000	9,220	13,900	1,210	7,850	11,000	4,440	155,000	XX	796
2005:										
January	9,040	756	1,940	114	585	780	279	13,500	13,500	40
February	10,200	596	2,040	122	524	853	360	14,700	28,200	95
March	7,600	1,010	1,950	488	629	750	334	12,800	40,900	81
April	11,100	813	1,820	325	515	1,070	316	16,000	56,900	65
May	9,140	866	1,260	257	595	831	407	13,400	70,300	75
June:										
Australia	1,180	79	--	--	--	--	--	1,260	6,090	--
Brazil	95	--	--	--	8	--	--	103	131	--
Canada	2,900	93	--	--	107	407	1	3,510	34,600	--
Colombia	--	--	164	--	--	--	--	164	1,800	--
Dominican Republic	--	--	2,210	--	--	--	--	2,210	8,960	--
Finland	114	36	--	--	--	--	82	232	2,040	--
France	128	--	--	--	140	--	39	307	1,230	6
Germany	(5)	8	--	--	49	--	33	90	557	46
Japan	--	13	--	--	10	(5)	30	53	277	14
Mexico	--	--	--	--	16	346	3	365	1,530	--
New Caledonia	--	--	100	--	--	--	--	100	600	--
Norway	3,750	--	--	--	--	--	--	3,750	10,500	--
Russia	642	18	--	--	--	--	--	660	10,900	--
South Africa	18	40	--	--	--	--	--	58	318	--
Sweden	--	2	--	--	--	--	--	2	10	--
United Kingdom	4	39	--	--	84	--	12	139	1,250	19
Venezuela	--	--	--	--	108	--	--	108	183	--
Zimbabwe	160	--	--	--	--	--	--	160	950	--
Other	25 ⁶⁾	7	--	--	61	22	108	223	1,730	34
Total	9,010	335	2,470	--	583	775	308	13,500	83,800	119
2005: January-June	56,100	4,370	11,500	1,310	3,430	5,060	2,010	83,800	XX	475
2004: January-June	53,700	4,490	6,510	357	4,410	5,880	2,300	77,600	XX	392

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

³Excludes wrought nickel.

⁴May include revisions for prior months.

⁵Less than 1/2 unit.

⁶All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of destination	Cathodes pellets, and briquets	Powder and flakes	Ferro- nickel	Metal- lurgical- grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date	Wrought nickel
2004:										
June	187	138	3	4	1,310	4,720	567	6,930	29,400	65
July	18	171	(4)	2	1,160	2,600	473	4,420	33,800	100
August	39	172	--	1	1,190	2,330	200	3,940	37,700	68
September	112	238	--	7	1,170	2,610	498	4,640	42,400	86
October	60	257	1	2	1,110	3,620	197	5,240	47,600	44
November	77	257	1	45	890	2,530	285	4,080	51,700	42
December	27	196	23	98	1,030	2,980	227	4,580	56,300	95
January-December	972	2,130	68	201	12,400	35,900	4,630	56,300	XX	1,110
2005:										
January	37	211	1	161	1,230	2,400	228	4,270	4,270	63
February	31	165	3	3	877	3,960	316	5,360	9,620	57
March	91	160	12	7	1,070	3,990	289	5,630	15,200	131
April	82	190	6	4	902	5,710	344	7,230	22,500	104
May	84	373	11	2	777	3,230	452	4,930	27,400	129
June:										
Australia	--	--	--	--	35	1	(4)	36	315	13
Belgium	--	1	--	--	--	2	66	69	187	(4)
Canada	16	52	1	(4)	331	138	155	693	6,330	8
China	--	5	--	--	27	1,260	15	1,300	8,040	7
Finland	--	38	--	--	--	549	--	587	3,090	--
Germany	--	15	--	--	25	1	5	46	382	6
India	--	(4)	--	--	9	186	(4)	195	1,740	--
Italy	--	1	--	(4)	--	--	--	1	23	2
Japan	2	9	--	(4)	--	53	33	97	604	12
Korea, Republic of	--	6	--	--	--	195	15	216	2,550	5
Mexico	144	11	--	--	--	34	31	220	2,880	1
Netherlands	--	(4)	--	--	--	59	--	59	286	(4)
South Africa	--	--	--	--	17	--	--	17	78	--
Spain	--	--	--	--	--	--	--	--	18	--
Sweden	--	--	--	--	--	2	--	2	162	--
Taiwan	2	1	--	--	10	384	--	397	2,760	1
United Kingdom	(4)	4	9	--	35	12	10	70	655	5
Other	4	33	--	1	34	74	130	276	1,600	154
Total	168	176	10	1	523	2,950	460	4,280	31,700	214
2005: January-June	494	1,280	41	179	5,380	22,200	2,090	31,700	XX	697
2004: January-June	640	842	43	45	5,860	19,200	2,750	29,400	XX	678

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

³Excludes wrought nickel.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2004:									
June	227	344	517	301	40	136	100	1,670	9,820
July	271	322	504	192	32	140	87	1,550	11,400
August	324	251	496	236	31	89	109	1,540	12,900
September	528	193	440	192	30	317	79	1,780	14,700
October	295	285	477	215	7	148	206	1,630	16,300
November	245	247	624	280	41	246	233	1,920	18,200
December	269	300	588	226	43	106	145	1,680	19,900
January-December	3,000	3,120	5,740	2,590	322	3,060	2,080	19,900	XX
2005:									
January	273	220	600	234	35	67	304	1,730	1,730
February	329	255	422	257	49	175	202	1,690	3,420
March:	361	294	629	316	16	103	173	1,890	5,320
April	241	338	486	274	33	143	176	1,690	7,010
May	310	355	662	324	43	148	152	1,990	9,000
June:									
Australia	124	--	--	--	--	--	(2)	124	614
Belgium	12	--	(2)	--	--	--	(2)	12	64
Canada	--	(2)	--	(2)	2	27	62	91	278
China	(2)	1	3	1	--	--	92	97	421
France	--	17	111	4	--	25	1	158	1,040
Germany	184	183	225	237	19	100	5	953	4,900
Italy	--	144	12	--	--	--	5	161	867
Japan	--	--	5	6	(2)	3	1	15	99
Mexico	--	--	(2)	--	--	1	11	12	85
Netherlands	19	--	(2)	--	--	--	11	30	138
South Africa	39	--	--	--	--	--	--	39	218
Sweden	--	1	181	8	--	--	--	190	1,340
United Kingdom	18	53	1	(2)	(2)	3	24	99	490
Other	41	23	20	4	--	2	25	114	532
Total	437	422	558	260	21	161	237	2,100	11,100
2005: January-June	1,950	1,880	3,360	1,670	196	797	1,240	11,100	XX
2004: January-June	1,060	1,530	2,610	1,250	138	2,010	1,220	9,820	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2004:									
June	511	722	130	427	33	170	272	2,270	14,100
July	614	1,100	177	350	11	132	244	2,630	16,700
August	629	760	176	234	10	123	221	2,150	18,800
September	1,010	1,080	169	389	16	163	257	3,090	21,900
October	517	776	190	390	26	178	236	2,310	24,300
November	613	1,110	183	327	21	148	256	2,660	26,900
December	823	1,100	157	350	5	150	244	2,830	29,700
January-December	7,510	10,400	1,850	4,470	244	1,800	3,440	29,700	XX
2005:									
January	994	1,180	84	312	11	226	186	2,990	2,990
February	910	1,050	104	392	10	163	278	2,910	5,900
March	1,200	1,350	178	388	7	200	404	3,730	9,630
April	499	1,350	135	340	8	190	281	2,800	12,400
May	1,200	1,170	158	378	3	191	268	3,370	15,800
June:									
Australia	--	(2)	(2)	(2)	--	2	1	3	41
Belgium	87	217	2	4	--	--	--	310	2,100
Canada	17	59	16	32	1	52	23	200	1,110
China	2	21	(2)	9	1	(2)	38	71	1,020
France	218	393	8	13	(2)	4	1	637	2,730
Germany	(2)	49	9	6	(2)	5	(2)	69	665
India	129	4	(2)	1	(2)	4	(2)	138	334
Ireland	--	--	1	(2)	--	--	(2)	1	35
Israel	--	103	2	2	--	(2)	4	111	575
Italy	1	26	(2)	6	--	(2)	(2)	33	732
Japan	262	49	1	16	(2)	14	2	344	3,630
Korea, Republic of	--	8	3	37	(2)	5	(2)	53	369
Mexico	6	40	41	19	(2)	60	145	311	1,740
Netherlands	--	1	1	10	--	2	3	17	151
Singapore	1	11	2	10	--	1	1	26	182
Spain	(2)	4	--	(2)	--	1	(2)	5	82
Sweden	--	12	--	17	--	--	8	37	118
Switzerland	--	1	--	1	(2)	(2)	(2)	2	140
Taiwan	1	5	(2)	18	(2)	4	1	29	206
United Kingdom	(2)	194	2	21	(2)	5	4	226	1,530
Other	2	25	20	53	3	57	41	201	1,150
Total	726	1,220	108	275	5	216	272	2,820	Table 7
2005: January-June	5,530	7,320	768	2,090	44	1,190	1,690	18,600	XX
2004: January-June	3,300	4,490	798	2,430	155	907	1,980	14,100	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 8
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
July 2005:		
Stainless and heat resisting steels	100	(1)
Alloy steels	99	1
Superalloys	81	19
Copper-nickel alloys	95	5
Other nickel-base alloys	100	(1)

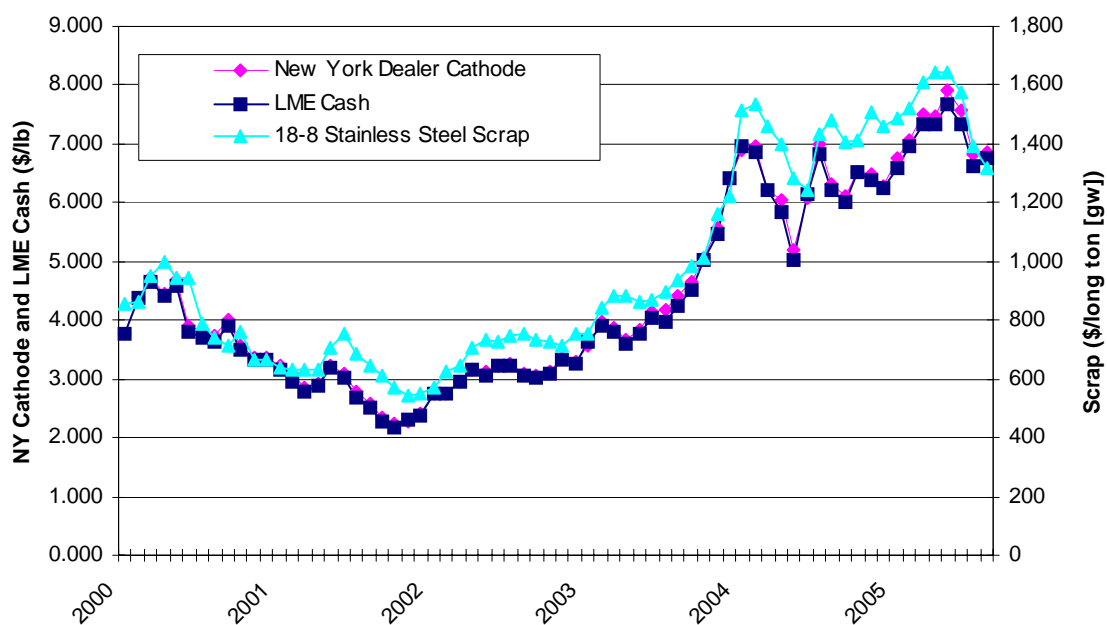
¹Less than 1/2 unit.

TABLE 9
NICKEL PRICES

Platts Metals Week					American Metal Market, 18/8 Stainless steel scrap Pittsburgh \$/long ton (gw)
Date	Cathode NY Dealer \$/lb.	LME Cash mean ¹ \$/t	LME Cash mean ¹ \$/lb.	18/8 Stainless steel scrap Free market \$/long ton (gw)	
2004:					
Average for month of:					
July	6.990	15,023.295	6.814	1,430	1,402
August	6.320	13,679.524	6.205	1,481	1,560
September	6.112	13,270.909	6.020	1,405	1,470
October	6.523	14,404.286	6.534	1,413	1,470
November	6.488	14,045.455	6.371	1,506	1,562
December	6.286	13,768.810	6.245	1,457	1,523
Yearly average	6.341	13,823.241	6.270	1,427	1,473
2005:					
Average for week ending:					
July 1	6.89-7.09	14,695.500	6.666	1,475-1,500	1,600-1,620
July 8	6.83-7.00	14,635.000	6.638	1,425-1,475	1,525-1,550
July 15	7.08-7.30	14,848.000	6.735	1,425-1,475	1,525-1,550
July 22	6.71-7.07	14,495.000	6.575	1,350-1,400	1,525-1,550
July 29	6.66-6.85	14,281.500	6.478	1,275-1,295	1,525-1,550
August 5	6.62-6.80	14,352.000	6.510	1,275-1,295	1,375-1,400
August 12	6.79-6.96	14,855.500	6.738	1,350-1,375	1,375-1,400
August 19	7.02-7.30	15,229.500	6.908	1,350-1,375	1,375-1,400
August 26	7.02-7.19	15,093.500	6.846	1,200-1,300	1,375-1,400
September 2	7.02-7.19	15,132.500	6.864	1,200-1,300	1,375-1,400
September 9	6.94-7.28	15,036.500	6.820	1,350-1,400	1,375-1,400
Average for month of:					
January	6.748	14,501.250	6.578	1,487	1,513
February	7.065	15,344.625	6.960	1,520	1,513
March	7.510	16,184.524	7.341	1,609	1,563
April	7.480	16,136.429	7.319	1,647	1,685
May	7.920	16,919.750	7.675	1,645	1,629
June	7.564	16,154.432	7.328	1,578	1,610
July	6.820	14,570.833	6.609	1,390	1,538
August	6.863	14,886.932	6.753	1,315	1,387

¹Mean of the cash buyer price and the cash seller and settlement price.

2000-2005 AVERAGE MONTHLY PRICES
 (Derived from Metals Week and American Metal Market quotations)



2000-2005 STOCKS

